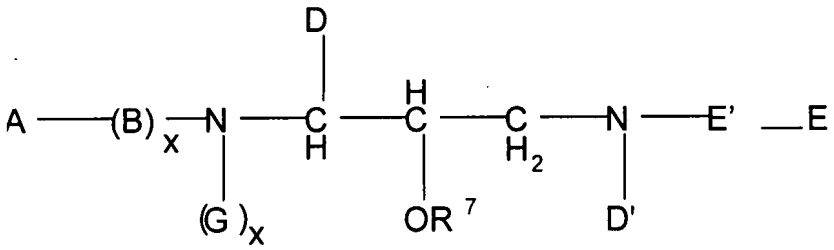
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A compound of formula I:



(I)

or a pharmaceutically acceptable salt thereof, wherein:

E' is $-SO_2-$;

A is selected from $-R^1-C_1-C_6$ alkyl, which is optionally substituted with one or more groups independently selected from hydroxy, C_1-C_4 alkoxy, Ht, -O-Ht, $-NR^2-CO-N(R^2)_2$, $-SO_2-R^2$ or $-CO-N(R^2)_2$; or $-R^1-C_2-C_6$ alkenyl, which is optionally substituted with one or more groups independently selected from hydroxy, C_1-C_4 alkoxy, Ht, -O-Ht, $-NR^2-CO-N(R^2)_2$ or $-CO-N(R^2)_2$; or R^7;

R^1 is -O-C(O)- ;

each Ht is independently selected from C_3-C_7 cycloalkyl; C_5-C_7 cycloalkenyl; C_6-C_{14} aryl; or a 5-7 membered saturated or unsaturated heterocycle, containing one or more heteroatoms selected from N, O, or S; wherein said aryl or said heterocycle is optionally fused to Q; and wherein any member of said Ht is optionally substituted with one or more substituents independently selected from oxo, $-OR^2$, SR^2, $-R^2$, $-N(R^2)(R^2)$, $-R^2-OH$, -CN, $-CO_2R^2$, $-C(O)-N(R^2)_2$, $-S(O)_2-N(R^2)_2$, $-N(R^2)-C(O)-R^2$, $-N(R^2)-C(O)O-R^2$, $-C(O)-R^2$, $-S(O)_n-$

R^2, $-OCF_3$, $-S(O)_n-Q$, methylenedioxy, $-N(R^2)-S(O)_2(R^2)$, halo, $-CF_3$, $-NO_2$, Q, -OQ, $-OR^7$, $-SR^7$, $-R^7$, $-N(R^2)(R^7)$ or $-N(R^7)_2$;

each Q is independently selected from a 3-7 membered saturated, partially saturated or unsaturated carbocyclic ring system; or a 5-7 membered saturated, partially saturated or unsaturated heterocyclic ring containing one or more heteroatoms selected from O, N, or S; wherein Q is optionally substituted with one or more groups selected from oxo, $-OR^2$, $-R^2$, $-SO_2R^2$, $-SO_2-N(R^2)_2$, $-N(R^2)_2$, $-N(R^2)-C(O)-R^2$, $-R^2-OH$, -CN, $-CO_2R^2$, $-C(O)-N(R^2)_2$, halo, $-CF_3$;

each R^2 is independently selected from H, or C_1-C_4 alkyl,; and wherein said alkyl, when not a substituent of Q, is optionally substituted with Q or $-OR^3$; wherein when said R^2 is an $-OR^3$ substituted moiety, said R^3 in $-OR^3$ may not be $-OR^2$ substituted;

B is absent;

each x is independently 0 or 1;

each R^3 is independently selected from H, Ht, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_3-C_6 cycloalkyl or C_5-C_6 cycloalkenyl; wherein any member of said R^3, except H, is optionally substituted with one or more substituents selected from $-OR^2$, $-C(O)-NH-R^2$, $-S(O)_n-N(R^2)(R^2)$, $-N(R^2)_2$, $-N(R^2)-C(O)-O(R^2)$, $-N(R^2)-C(O)-N(R^2)$, $-N(R^2)-C(O)-(R^2)$, Ht, -CN, $-SR^2$, $-CO_2R^2$, or $NR^2-C(O)-R^2$;

each n is independently 1 or 2;

G is H;

D is **benzyl** ~~C_1-C_6-alkyl optionally substituted with Q~~;

D' is selected from C_1-C_{15} alkyl, C_2-C_{15} alkenyl or C_2-C_{15} alkynyl, each of which contains one or more substituents selected from oxo, $-CF_3$, $-OCF_3$, $-NO_2$, azido, -SH, $-N(R^3)-N(R^3)_2$, $-O-N(R^3)_2$, $-(R^3)N-O-(R^3)$, -CN, $-CO_2R^3$, $-C(O)-N(R^3)_2$, $-S(O)_n-N(R^3)_2$, $-N(R^3)-C(O)-R^3$, $-N(R^3)-C(O)-N(R^3)_2$, $-N(R^3)-C(O)-S(R^3)$, $-C(O)-R^3$, $-N(R^3)-S(O)_n(R^3)$, $-N(R^3)-S(O)_n-N(R^3)_2$, $-S-NR^3-C(O)R^3$, $-C(S)N(R^3)_2$, $-C(S)R^3$, $-NR^3-C(O)OR^3$, $-O-C(O)OR^3$, $-O-C(O)N(R^3)_2$,

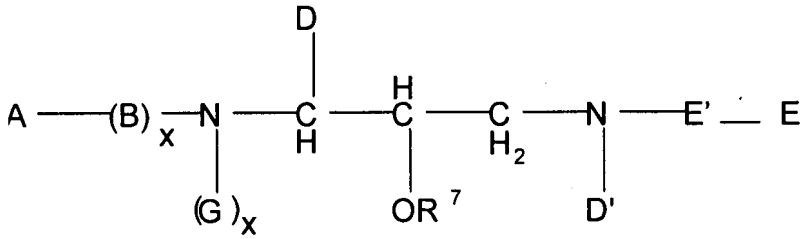
$-NR^3-C(S)R^3$, =N-OH, $=N-OR^3$, $=N-N(R^3)_2$, $=NR^3$, $=NNR^3C(O)N(R^3)_2$, $=NNR^3C(O)OR^3$, $=NNR^3S(O)_n-N(R^3)_2$, $-NR^3-C(S)OR^3$, $-NR^3-C(S)N(R^3)_2$, $-NR^3-C[=N(R^3)]-N(R^3)_2$, $-N(R^3)-C[=N-NO_2]-N(R^3)_2$, $-N(R^3)-C[=N-NO_2]-OR^3$, $-N(R^3)-C[=N-CN]-OR^3$, $-N(R^3)-C[=N-CN]-(R^3)_2$, $-OC(O)R^3$, $-OC(S)R^3$, $-OC(O)N(R^3)_2$, $-C(O)N(R^3)-N(R^3)_2$, $-O-C(O)N(R^3)-N(R^3)_2$, $O-C(O)N(OR^3)(R^3)$, $N(R^3)-N(R^3)C(O)R^3$, $N(R^3)-OC(O)R^3$, $N(R^3)-OC(O)R^3$, $N(R^3)-OC(O)R^3$, $-OC(S)N(R^3)_2$, $-OC(S)N(R^3)(R^3)$, or PO_3-R^3;

E is selected from Ht; O-Ht; Ht-Ht; Ht fused with Ht; $-O-R^3$; $-N(R^2)(R^3)$; C_1-C_6 alkyl optionally substituted with one or more groups selected from R^4 or Ht; C_2-C_6 alkenyl optionally substituted with one or more groups selected from R^4 or Ht; C_3-C_6 saturated carbocycle optionally substituted with one or more groups selected from R^4 or Ht; or C_5-C_6 unsaturated carbocycle optionally substituted with one or more groups selected from R^4 or Ht;

each R^4 is independently selected from $-OR^2$, $-OR^3$, $-SR^2$, $-SOR^2$, $-SO_2R^2$, $-CO_2R^2$, $-C(O)-NHR^2$, $-C(O)-N(R^2)_2$, $-C(O)-NR^2(OR^2)$, $-S(O)_2-NHR^2$, halo, $-NR^2-C(O)-R^2$, $-N(R^2)_2$ or –CN; and

each R^7 is hydrogen.

2. (Previously presented) The compound according to claim 1, having the formula IA:



(IA)

wherein:

D' is selected from C_{1-15} alkyl, C_{2-15} alkenyl or C_2-C_{15} alkynyl; each of which is substituted with one to two –CN groups and is optionally substituted with C_3-C_8 cycloalkyl.

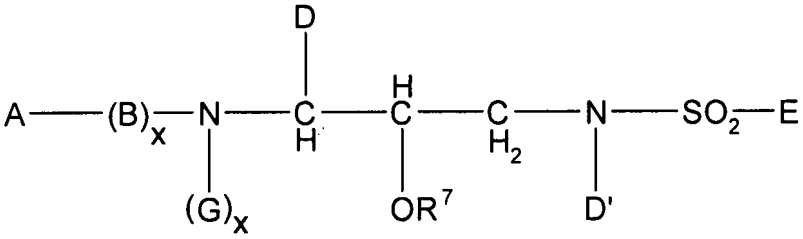
3. (Previously presented) The compound according to claim 2 wherein:

D' is selected from C_{1-15} alkyl or C_{2-15} alkenyl; each of which is substituted with one to two –CN groups and is optionally substituted with C_3-C_8 cycloalkyl.

4. (Previously presented) The compound according to claim 2 wherein:

D' is C_2-C_{15} alkynyl which is substituted with one to two –CN groups and is optionally substituted with C_3-C_8 cycloalkyl.

5. (Previously presented) The compound according to claim 1 having the formula IB:



(IB)

wherein:

D' is selected from C_1-C_{15} alkyl, C_2-C_{15} alkenyl or C_2-C_{15} alkynyl, each of which contains one or more substituents selected from oxo, $-CF_3$, $-OCF_3$, $-NO_2$, azido, -SH, $-N(R^3)-N(R^3)_2$, $-O-N(R^3)_2$, $-(R^3)N-O-(R^3)$, $-CO_2R^3$, $-C(O)-N(R^3)_2$, $-S(O)_n-N(R^3)_2$, $-N(R^3)-C(O)-R^3$, $-N(R^3)-C(O)-N(R^3)_2$, $-N(R^3)-C(O)-S(R^3)$, $-C(O)-R^3$, $-N(R^3)-S(O)_n(R^3)$, $-N(R^3)-S(O)_n-N(R^3)_2$, $-S-NR^3-C(O)R^3$, $-C(S)N(R^3)_2$, $-C(S)R^3$, $-NR^3-C(O)OR^3$, $-O-C(O)OR^3$, $-O-C(O)N(R^3)_2$, $-NR^3-$

$C(S)R^3$, =N-OH, =N-OR^3, =N-$N(R^3)_2$, =NR^3, =$NNR^3C(O)N(R^3)_2$, =$NNR^3C(O)OR^3$, =$NNR^3S(O)_n$-$N(R^3)_2$, -NR^3-$C(S)OR^3$, -NR^3-$C(S)N(R^3)_2$, -NR^3-$C[=N(R^3)]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-OR^3, -$N(R^3)$-C[=N-CN]-OR^3, -$N(R^3)$-C[=N-CN]-$(R^3)_2$, -$OC(O)R^3$, -$OC(S)R^3$, -$OC(O)N(R^3)_2$, -$C(O)N(R^3)$-$N(R^3)_2$, -O-$C(O)N(R^3)$-$N(R^3)_2$, O-$C(O)N(OR^3)(R^3)$, $N(R^3)$-$N(R^3)C(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, -$OC(S)N(R^3)_2$, -$OC(S)N(R^3)(R^3)$, or PO_3-R^3.

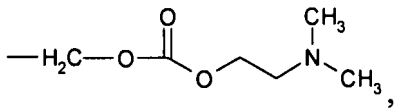
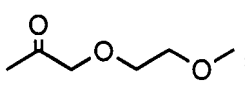
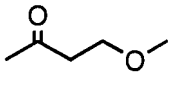
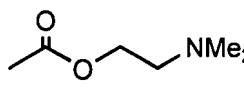
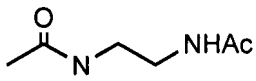
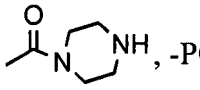
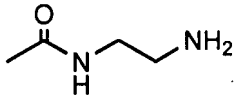
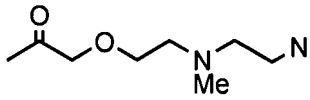
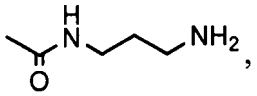
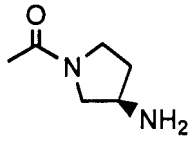
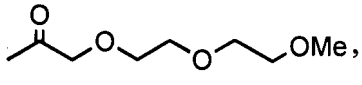
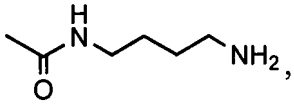
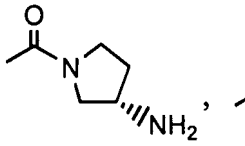
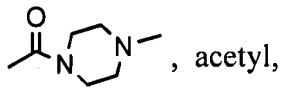
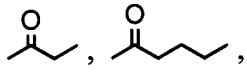
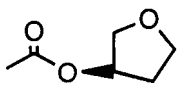
6. (Previously presented) The compound according to claim 5 wherein:

D' is selected from C_1-C_{15} alkyl or C_2-C_{15} alkenyl, each of which contains one or more substituents selected from oxo, $-CF_3$, $-OCF_3$, $-NO_2$, azido, - $N(R^3)$-$N(R^3)_2$, -O-$N(R^3)_2$, -(R^3)N-O-(R^3), -$N(R^3)$-$C(O)$-$N(R^3)_2$, -$N(R^3)$-$C(O)$-$S(R^3)$, -$C(O)$-R^3, -$N(R^3)$-$S(O)_n(R^3)$, -$N(R^3)$-$S(O)_n$-$N(R^3)_2$, -S-NR^3-$C(O)R^3$, -$C(S)N(R^3)_2$, -$C(S)R^3$, -NR^3-$C(O)OR^3$, -O-$C(O)OR^3$, -O-$C(O)N(R^3)_2$, -NR^3-$C(S)R^3$, =N-OH, =N-OR^3, =N-$N(R^3)_2$, =NR^3, =$NNR^3C(O)N(R^3)_2$, =$NNR^3C(O)OR^3$, =$NNR^3S(O)_n$-$N(R^3)_2$,-NR^3-$C(S)OR^3$, -NR^3-$C(S)N(R^3)_2$, -NR^3-$C[=N(R^3)]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-OR^3, -$N(R^3)$-C[=N-CN]-OR^3, -$N(R^3)$-C[=N-CN]-$(R^3)_2$, -$OC(O)R^3$, -$OC(S)R^3$, -$OC(O)N(R^3)_2$, -$C(O)N(R^3)$-$N(R^3)_2$, -O-$C(O)N(R^3)$-$N(R^3)_2$, O-$C(O)N(OR^3)(R^3)$, $N(R^3)$-$N(R^3)C(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, -$OC(S)N(R^3)_2$, -$OC(S)N(R^3)(R^3)$, or PO_3-R^3; C_2-C_{15} alkynyl which contains one or more substituents selected from oxo, $-CF_3$, $-OCF_3$, $-NO_2$, azido, -SH, - $N(R^3)$-$N(R^3)_2$, -O-$N(R^3)_2$, -(R^3)N-O-(R^3), -CO_2R^3, -$C(O)$-$N(R^3)_2$, -$S(O)_n$-$N(R^3)_2$, -$N(R^3)$-$C(O)$-R^3, -$N(R^3)$-$C(O)$-$N(R^3)_2$, -$N(R^3)$-$C(O)$-$S(R^3)$, -$C(O)$-R^3, -$N(R^3)$-$S(O)_n(R^3)$, -$N(R^3)$-$S(O)_n$-$N(R^3)_2$, -S-NR^3-$C(O)R^3$, -$C(S)N(R^3)_2$, -$C(S)R^3$, -NR^3-$C(O)OR^3$, -O-$C(O)OR^3$, -O-$C(O)N(R^3)_2$, -NR^3-$C(S)R^3$, =N-OH, =N-OR^3, =N-$N(R^3)_2$, =NR^3, =$NNR^3C(O)N(R^3)_2$, =$NNR^3C(O)OR^3$,=$NNR^3S(O)_n$-$N(R^3)_2$,-NR^3-$C(S)OR^3$, -NR^3-$C(S)N(R^3)_2$, -NR^3-$C[=N(R^3)]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-$N(R^3)_2$, -$N(R^3)$-$C[=N\text{-}NO_2]$-OR^3, -$N(R^3)$-C[=N-CN]-OR^3, -$N(R^3)$-C[=N-CN]-$(R^3)_2$, -$OC(O)R^3$, -$OC(S)R^3$, -$OC(O)N(R^3)_2$, -$C(O)N(R^3)$-$N(R^3)_2$, -O-$C(O)N(R^3)$-$N(R^3)_2$, O-$C(O)N(OR^3)(R^3)$, $N(R^3)$-$N(R^3)C(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, $N(R^3)$-$OC(O)R^3$, -$OC(S)N(R^3)_2$, -$OC(S)N(R^3)(R^3)$, or PO_3-R^3.

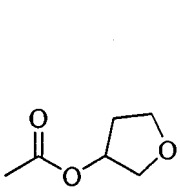
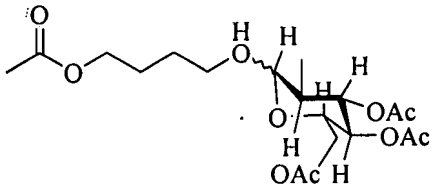
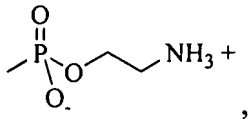
7. (Previously presented) The compound according to claim 5 wherein:

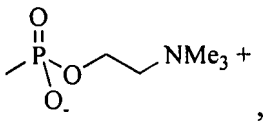
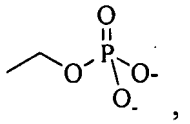
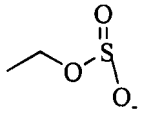
D' is selected from C_1-C_{15} alkyl or C_2-C_{15} alkenyl, each of which contains one or more substituents selected from -SH, $-CO_2R^3$, $-C(O)-N(R^3)_2$, $-S(O)_n-N(R^3)_2$ or $-N(R^3)-C(O)-R^3$.

8. (Canceled)

9. (Withdrawn – Currently amended) The compound according to any one of claims 1 to 7, wherein at least one R^7 is selected from:  ,  ,  , -(L)-lysine, $-PO_3Na_2$,  ,  , -(L)-tyrosine,  , $-PO_3Mg$, $-PO_3(NH_4)_2$, $-CH_2-OPO_3Na_2$,  , -(L)-serine, $-SO_3Na_2$,  , $-SO_3Mg$, $-SO_3(NH_4)_2$, $-CH_2-OSO_3Na_2$, $-CH_2-OSO_3(NH_4)_2$,  ,  ,  ,  ,  ,  , acetyl,  , -(L)-valine, -(L)-glutamic acid, -(L)-aspartic acid, -(L)-γ-t-butyl-aspartic acid,  ,

~~-(L)-(L)-3-pyridylalanine,~~ **-(L)-3-pyridylalanine,** -(L)-histidine, -CHO, ,

 ,  ,  ,

 ,  ,  , PO_3K_2, PO_3Ca,

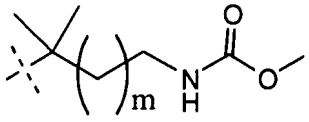
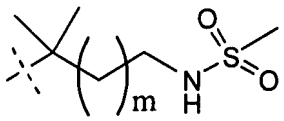
PO_3-spermine, PO_3-$(spermidine)_2$ or PO_3-$(meglamine)_2$.

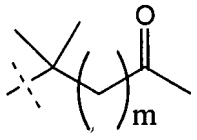
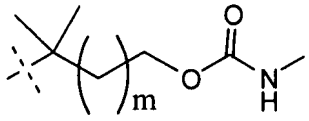
10-11. (Canceled)

12. (Original) The compound according to claim 10, wherein:

D' is $-CH_2-R''$; and

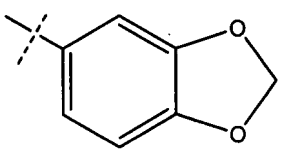
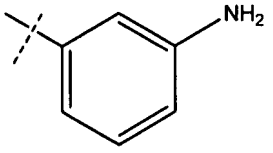
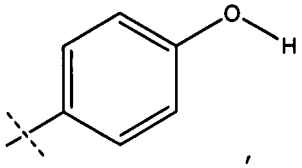
R'' is selected from

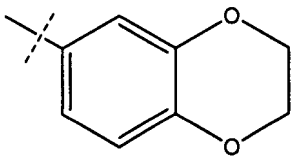
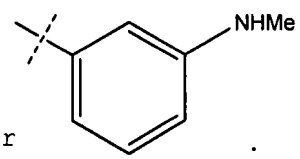
 ,  ,  ,

 or  ;

wherein m is 0 to 3.

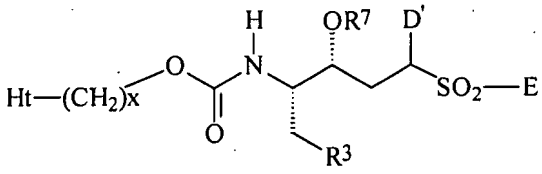
13. (Original) The compound according to claim 10, wherein E is selected from


or


14. (Withdrawn) The compound according to claim 10, wherein R^7 is $-PO_3^{2-}$

15. (Currently amended) The compound according to claim 1, having the formula III:

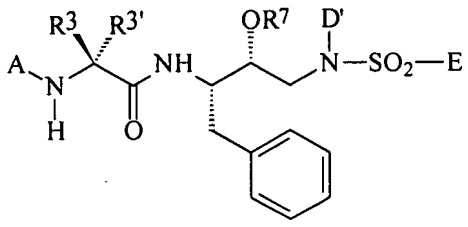


(III),

wherein x = 1**; and**

R^3 is phenyl.

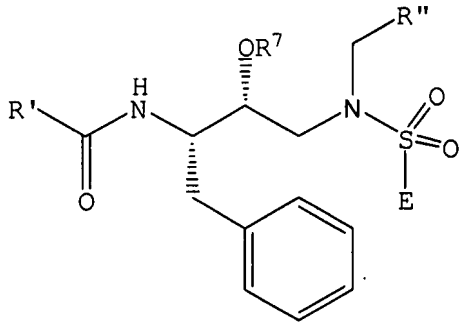
16. (Withdrawn) The compound according to claim 1, having the formula IV:



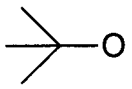
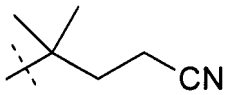
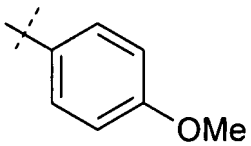
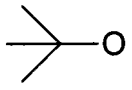
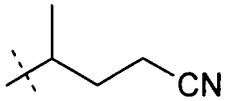
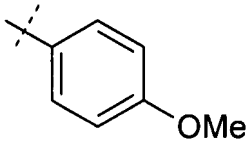
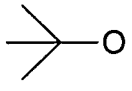
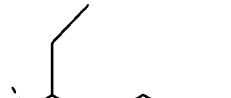
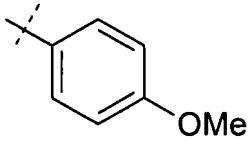
(IV);

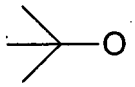
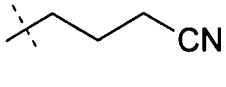
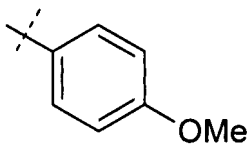
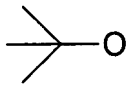
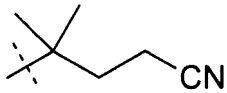
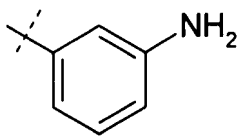
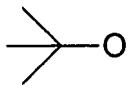
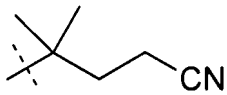
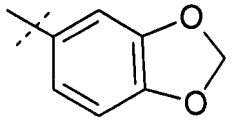
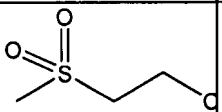
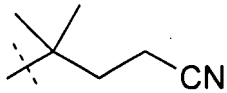
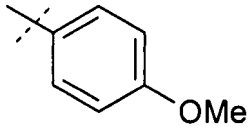
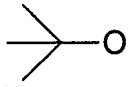
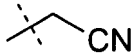
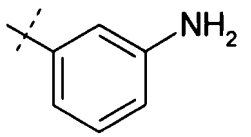
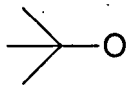
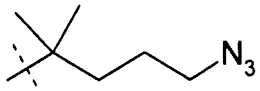
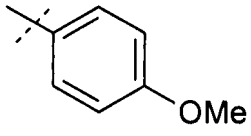
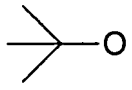
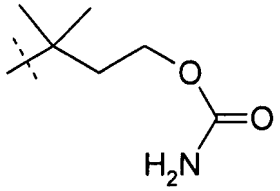
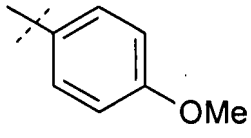
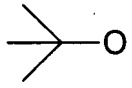
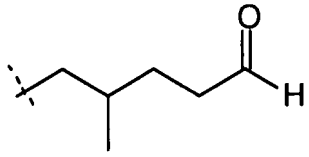
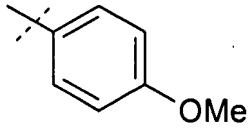
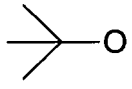
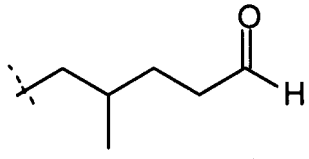
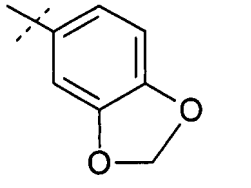
wherein $R^{3'}$ is selected from H, Ht, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_3-C_6 cycloalkyl or C_5-C_6 cycloalkenyl; wherein any member of said R^3, except H, is optionally substituted with one or more substituents selected from $-OR^2$, $-C(O)-NH-R^2$, $-S(O)_n-N(R^2)(R^2)$, $-N(R^2)_2$, $-N(R^2)-C(O)-O(R^2)$, $-N(R^2)-C(O)-N(R^2)$, $-N(R^2)-C(O)-(R^2)$, $-N(R^2-OR^2)_2$, $-C(O)$-Ht, Ht, -CN, $-SR^2$, $-CO_2R^2$, or $NR^2-C(O)-R^2$.

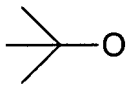
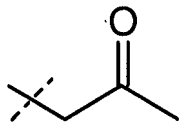
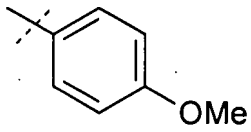
17. (Currently amended) The compound according to claim 1, wherein said compound is selected from any one of compound numbers: 1, 2, 3, 4, 5, 6, 22, 127, 203, 234, 277, 278, **and** 279~~, 363, and 364~~:

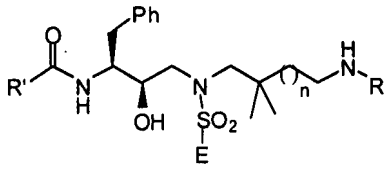


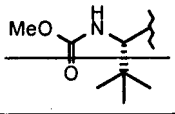
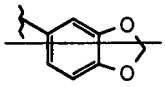
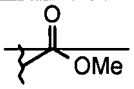
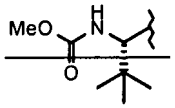
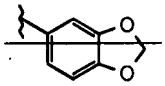
wherein R^7 is H; and

Compound	R'	R''	E
1			
2			
3			

Compound	R'	R''	E
4			
5			
6			
22			
127			
203			
234			
277			
278			

Compound	R'	R''	E
279			

[[]]

~~Compound~~	~~R'~~	~~E~~	~~n~~	~~R~~
~~363~~			~~3~~	
~~364~~			~~3~~	

18-22. (Canceled)

23. (Currently amended) A composition comprising a compound according to any one of claims 1-7, [[10,]] 12, 13, 15, and 17 or a pharmaceutically acceptable salt thereof in a therapeutically effective amount, and a pharmaceutically acceptable carrier.

24. (Canceled)

25. (Original) The composition according to claim 23, wherein said composition is formulated as a pharmaceutically acceptable, orally available tablet or capsule.

26. (Previously presented) A method of treating an HIV virus infection in a human comprising the step of administering to said human a composition according to claim 23.

27-29. (Canceled)

30. (Previously presented) A method of treating an HIV virus infection in a human comprising the step of administering to said human a composition according to claim 25.

31. (Canceled)